

## **Ram Vijayagopal**

Asst. Systems Analysis Engineer, Center for Transportation Research  
Energy Systems Division (ES)  
Argonne National Laboratory (ANL)

### **Professional Experience**

- 3/08-present    Asst. Systems Analysis Engineer  
Center for Transportation Research, ES Division  
Working as a member of the PSAT development team.
- 12/03 – 8/06    Engineer  
Hitachi Automotive Systems, Ibaraki-ken, Japan  
Worked in the 'Control Group' of Electric Powertrain Development Center, on developing, implementing and testing the motor control for a mild hybrid system.  
Key responsibilities were
- Design and development of control algorithms for a motor/generator unit.
  - Micro-controller programming
  - Hardware In the Loop Simulation(HILS)
  - Implementing the CAN communication modules in the micro-controller
  - Modeling and simulation of hybrid sub-systems in Matlab/Simulink
  - Developing on-board diagnostics, fault recognition and fault tolerant strategies
  - Testing and validation of the sub-systems and interaction with clients
- 06/00 – 11/03    Engineer  
Mahindra Consulting Ltd, Bombay, India  
I was part of the team which developed and implemented the product lifecycle management system for the one of the largest automobile manufacturers in India. Some of the projects were
- Change management, Document management, Configurable product development
  - Automatic update & conversion of engineering BOM to process BOM

### **Education**

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|------------------------|--|
| Master of Science      | Mechanical Engineering, University of Michigan,<br>Ann Arbor, MI, USA (2006-2008)      |
| Bachelor of Technology | Mechanical Engineering, University of Kerala,<br>Trivandrum, Kerala, India (1996-2000) |

### **Professional Society Activities**

Member of Society of Automotive Engineers

### **Awards**

- Hindu-Hitachi scholarship (2002), instituted by Hitachi Corporation, Japan and 'The Hindu', one of India's foremost publishing houses.
- 'State Committee for Science and Technology Research Grant'. (1998 – 2000)

### **Publications: Peer Reviewed Conference Papers**

- Masahiko Amano, Ram V.Gopal, Takeshi Matsuo, Masaaki Hayashi, "Practical optimization of energy management in parallel hybrid electric vehicles", EVS-20, California, 2003

### **Oral Presentations**

- Ram Vijayagopal, Brian Adornato, Prof.Zoran Filipi, "Modeling and Simulation of Auxiliary Electric Loads on a PHEV", Engineering Graduate Symposium, University of Michigan, MI (Nov, 2008)